

Universal Design Approach for Enhancing Inclusivity in Interprofessional E-Learning Module

Suhasini Kotcherlakota, PhD
Claudia Chaperon, PhD, APRN, GNP-BC
College of Nursing

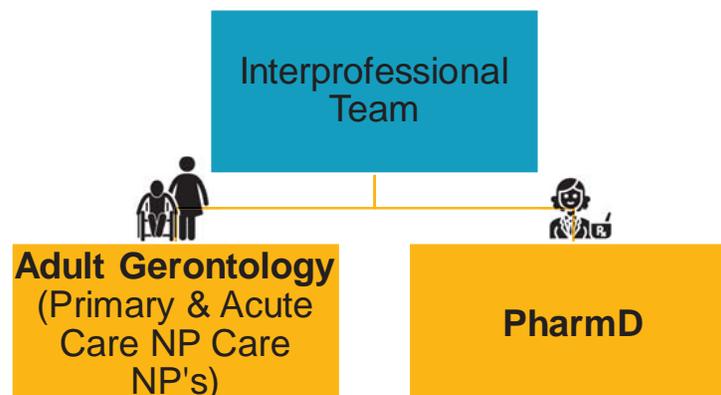


We have no financial disclosures.

Transitional Care E-Learning module designed to promote safety for older adults



Target Students since 2017



E-Learning Module video



Takeaways



Describe methods and benefits of digital storytelling



Describe Universal Design practices for enhancing inclusivity



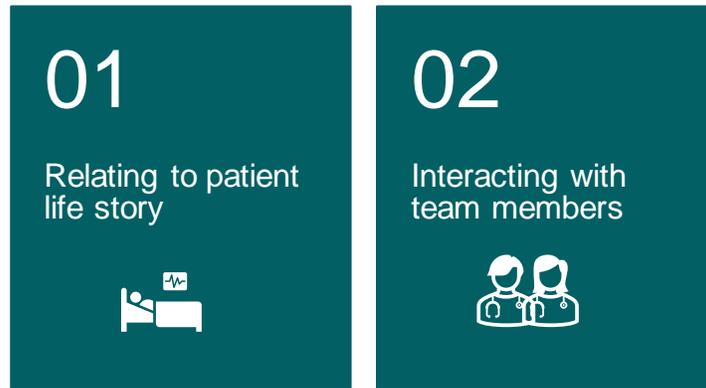
Discuss measurement approaches for evaluation of IPE students' knowledge, teamwork, and collaboration.



Storytelling Approach



Purposes for storytelling approach



Story building

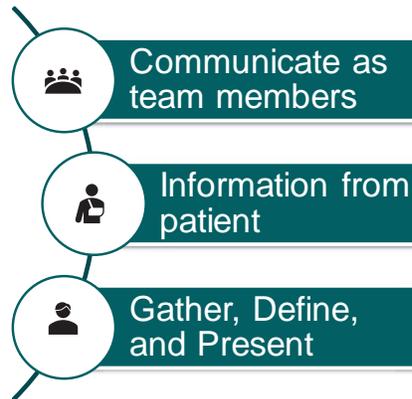
Relationship

Level 3: Interprofessional Teamwork
• to others on the team

Level 2: Provider-patient Communication
• to the patient

Level 1: Professional identity
• to self

(Clark, 2015)



Story to Narrative in E-Learning

Relationship

Level 3: Interprofessional Teamwork
• to others on the team

Level 2: Provider-patient Communication
• to the patient

Level 1: Professional identity
• to self

(Clark, 2015)

Building a Narrative from story

which events to relate

order of events

“Multivocality” is crucial for effective storytelling



Key Findings: **Narrative approaches** provide insight into the meaning of an older patient's illness.

Different health professions frame the problems of older adults differently.

Narrative in the professions of medicine, nursing, and social work is **reviewed**.

A **conceptual framework** characterizes using narrative as the development of “**voices**”.

(Clark, 2015)

Presence or absence of a team member can shape the story (narration) and team’s options for care



Key Findings: **Narrative approaches** provide insight into the meaning of an older patient's illness.

Different health professions frame the problems of older adults differently.

Narrative in the professions of medicine, nursing, and social work is **reviewed**.

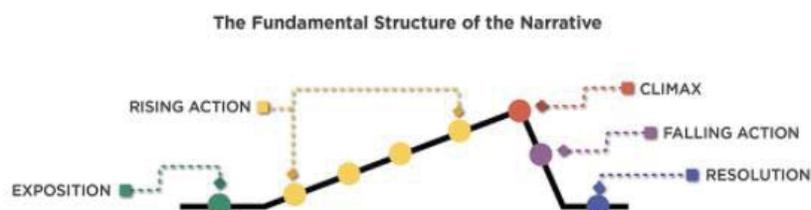
A **conceptual framework** characterizes using narrative as the development of “**voices**”.

(Clark, 2015)

Narrative



Digital Storytelling as a medium to enhance learning in health professions



Digital Storytelling as a medium to enhance learning in health professions

 Characters	 Plot
 Outer dialogue, and inner reflection	 Contrast (good/bad)
 Drama or intrigue	 Sensory Information
 Layers of meaning	 A universal lesson or key point related to main character



E-Learning Module Decisions

Collaboration

Subject matter experts, instructional designer, technologists etc.



Achieving student learning outcomes

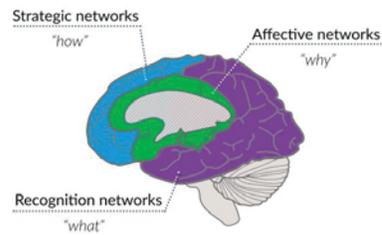
Pedagogical framework

Universal design

Universal Design

CAST

“The concept of **neuro-variability** is important for educators, because it reminds us that learners do not have an isolated learning “style”, but instead rely on many parts of the brain working together to function within a given context.”



CAST (2018). Universal Design for Learning Guidelines. Retrieved from <http://udlguidelines.cast.org>

Universal Design provides learning opportunities for all

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING



Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

CAST (2018). Universal Design for Learning Guidelines. Retrieved from <http://udlguidelines.cast.org>

Choosing an inclusive approach

Inclusivity is “a design that considers the full range of human diversity with respect to ability, language, culture, gender, age, and other forms of human difference.”

Curb-Cut Effect

Solve for one, Extend to many

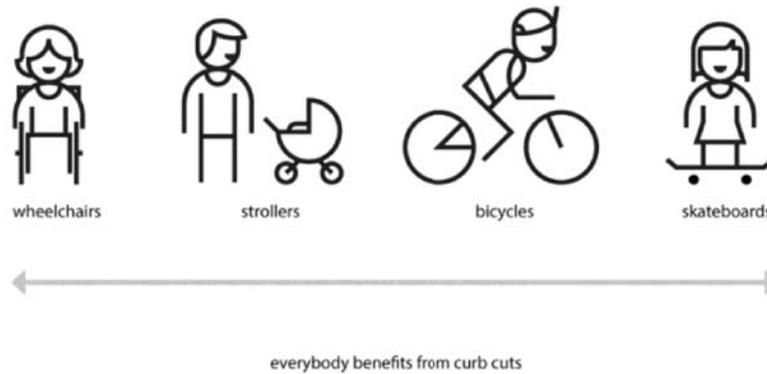


Image Source: Adobe Blog

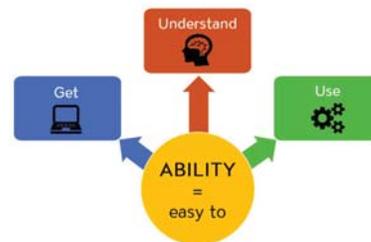
Accessibility is not about disability; it's actually about ability.

Universal Design

Acquire the same information

Engage in the same interactions

Enjoy the same services



Source: Csun.edu/cdc

Creating Inclusive Climate

Sharing multiple perspectives

Avoiding stereotyping

Creating motivation with relevance to diverse characteristics



Example of Inclusive language



Tips	Use	Do not use
Do not use language that suggests lack of something	Person with cerebral palsy	Cerebral palsy victim
Avoid language that implies negative stereotypes	Person without a disability	Normal person, healthy person

Source: www.cdc.gov/disabilities

Software for character animation



Customized characters

Lip sync

Realistic movement actions



Inclusivity – Think POUR



Perceivable

Operable

Understandable

Robust

POUR = Perceivable



Can a learner's brain perceive the content regardless of the senses they use?



Without Alt Text

With Alt Text

Img_89760

Doctor wearing a stethoscope

POUR = Perceivable



Can a learner's brain perceive the content regardless of the senses they use?



Difficult Content

Speakers with heavy accents

Non-Native language

POUR = Operable



Can a learner access and navigate regardless of the device?



POUR = Understandable

Can the content be understood as easily as possible through simple language and contextual information?

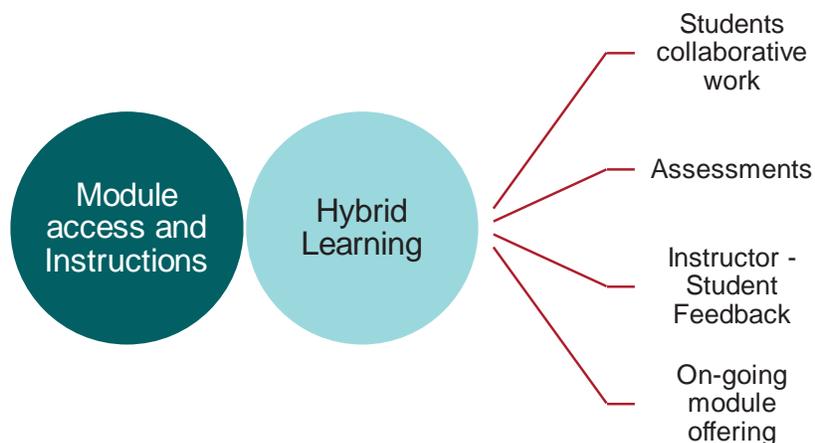


POUR = Robust

Can the content be accessed regardless of the users operating system, browser, browser window?



Module Access via Canvas LMS





Measurement Approaches



Moodle access reports

CGAP IPE
Dashboard / Courses / cgapipe / CGAP IPE / Transitional Care 2021 / Report

Transitional Care 2021

Basic report | Graph report | Interactions report | Objectives report

71 attempts for 45 users, out of 73 results

First name	Surname	First name / Surname	Email address	Attempt	Started on	Last accessed on	Score	Transitional Care
				-	-	-	-	<input type="checkbox"/> Not attempted
				1	Wednesday, 14 April 2021, 2:49 PM	Wednesday, 14 April 2021, 2:51 PM	0	<input checked="" type="checkbox"/> Failed
				-	-	-	-	<input type="checkbox"/> Not attempted
				1	Thursday, 15 April 2021, 11:09 AM	Thursday, 15 April 2021, 11:21 AM	83.33	<input checked="" type="checkbox"/> 83.33/100
				1	Thursday, 15 April 2021, 11:41 AM	Thursday, 15 April 2021, 11:49 AM	66.66	<input checked="" type="checkbox"/> 66.66/100
				1	Thursday, 15 April 2021, 11:55 AM	Thursday, 15 April 2021, 12:07 PM	100	<input checked="" type="checkbox"/> 100/100



Moodle results + Excel Analysis

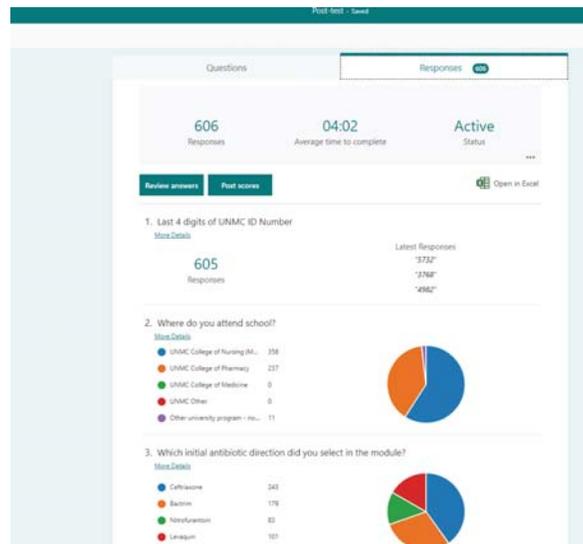
Response ID	Question 1	Response 1	Result 1	Question 2	Result 2
2992	1.6	_service_FIRST_not_this_patient_has_arrived	correct	1.8	correct
4009	1.6	Admitting_Nurse_in_Skilled_Nursing_Facility_c alls_discharging_RN_from_acute_care_by_ph one.	wrong	1.8	correct
2696	1.6	Admitting_RN_will_notify_admitting_APRN_on _service_FIRST_not_this_patient_has_arrived	correct	1.8	correct
2983	1.6	Admitting_RN_will_notify_admitting_APRN_on _service_FIRST_not_this_patient_has_arrived	correct	1.1	correct
1693	1.6	_service_FIRST_not_this_patient_has_arrived	correct	1.1	correct
3807	1.6	Admitting_Nurse_in_Skilled_Nursing_Facility_c alls_discharging_RN_from_acute_care_by_ph one.	wrong	1.1	correct
8854	1.6	Admitting_RN_will_notify_admitting_APRN_on _service_FIRST_not_this_patient_has_arrived	correct	1.1	correct
8854	1.6	Admitting_RN_will_notify_admitting_APRN_on _service_FIRST_not_this_patient_has_arrived	correct	1.1	correct

Question 3	Question 4	Result 4	Question 5	Response 5	Result 5	Question 6	Result 6
1.1	correct		1.12	wrong			
1.1	correct	1.11	lorazepam oxycodone hydrocodone	neutral	1.12	wrong	
1.1	correct	1.11	infection medication induced dehydration	neutral	1.12	correct	
1.1	correct	1.11	medications infection, different atmosphere, sleep deprivation	neutral	1.12	correct	
1.1	correct	1.11	oxycodone and lorazepam	neutral	1.12	correct	
1.1	correct	1.11	x2 Lorazepam Serquel Haldol newmy	neutral	1.12	correct	
			Hospitalization Medications- oxycotin and fentanyl with PRN Norco and Tramadol Scheduled Serquel and PRN Lorazepam and Haldol				

Moodle Results + Excel responses

Response 8	Result 8	Question 9	Response 9						
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_C	correct		1.11	neutral	1.13	neutral
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_C	correct					
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_C	correct					
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_C	correct	1.9	neutral		1.13	neutral
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_A	wrong	1.9	neutral	1.11	neutral	1.13
e_Choices_b_and_c_are_both_necessary.	correct	1.2	Plan_of_Care_B	wrong					

Microsoft Forms - Pre and Post tests



ICCAS Form Screenshot

Forms | The Interprofessional Collaborative Competency Attainment Scale - Saved

Preview | Theme | Share

Questions | Responses 50

The Interprofessional Collaborative Competency Attainment Scale

Please rate your ability (before and after) participating in the learning activities for each for the following statements.

1. Promote effective communication among members of an interprofessional (IP) team *

	Poor	Fair	Good	Very Good	Excellent
Before	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

2. Actively listen to IP team members' ideas and concerns *

	Poor	Fair	Good	Very Good	Excellent
Before	<input type="radio"/>				
After	<input type="radio"/>				

ICCAS Form



1. Promote effective communication among members of an interprofessional (IP) team

[More Details](#)

■ Poor ■ Fair ■ Good ■ Very Good ■ Excellent



2. Actively listen to IP team members' ideas and concerns

[More Details](#)

■ Poor ■ Fair ■ Good ■ Very Good ■ Excellent



Summary



Create Digital stories for IPE narratives

Design for inclusivity with a Universal design mindset

Avoiding bias

Providing access

Evaluate for outcomes and improvement

References



Phillip G. Clark (2014) Narrative in interprofessional education and practice: Implications for professional identity, provider–patient communication and teamwork, *Journal of Interprofessional Care*, 28:1, 34-39, DOI: 10.3109/13561820.2013.853652.

Phillip G. Clark. (2015) Emerging themes in using narrative in geriatric care: Implications for patient-centered practice and interprofessional teamwork, *Journal of Aging Studies*, 34, 177-182, ISSN 0890-4065, <https://doi.org/10.1016/j.jaging.2015.02.013>.

CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>

Questions

